

**Additional Improvements Are Needed in the
Application of Performance-Based
Contracting to Business Systems
Modernization Projects**

September 2002

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DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

INSPECTOR GENERAL
for TAX
ADMINISTRATION

September 13, 2002

MEMORANDUM FOR DEPUTY COMMISSIONER FOR MODERNIZATION &
CHIEF INFORMATION OFFICER

A handwritten signature in cursive script, reading "Pamela J. Gardiner".

FROM: Pamela J. Gardiner
Acting Inspector General

SUBJECT: Final Audit Report - Additional Improvements Are Needed in the
Application of Performance-Based Contracting to Business
Systems Modernization Projects (Audit # 200120045)

This report presents the results of our review of the use of Performance-Based Contracting in the Internal Revenue Service's (IRS) Business Systems Modernization Office (BSMO). The overall objective of this review was to determine whether the BSMO was properly using performance-based contracting techniques to manage task orders¹ under the PRIME contract² and to ensure contract terms and requirements are being met. This contract is potentially a multi-billion dollar contract, and conscientious management is critical to ensure this money is spent appropriately.

In summary, we found that improvements have been made in managing task orders issued to the PRIME contractor. The time required to obtain agreement between the BSMO and the PRIME contractor on task order requirements has been reduced from 384 days to 90 days, and the average number of modifications required for task orders has been lowered from 8 to less than 5.

While there have been significant improvements in getting agreements on task order requirements and reducing modifications, we believe that continuing improvements in the application of performance-based contracting techniques in the following areas would improve the BSMO's ability to manage the PRIME contractor's performance:

¹ A task order is an order for services placed against an established contract.

² The Computer Sciences Corporation was selected as the PRIME contractor to help with the integration and management of the IRS' modernization efforts.

- Performance standards in project work statements were sometimes too numerous to be monitored, were not always measurable, and often focused on the production of documentation rather than the development of the business systems.
- Plans for monitoring contractor performance were not consistent among projects, subjective monitoring methods were often used, and determinations of whether or not the PRIME contractor met the performance standard were often not made and documented.
- Incentives were not consistently tied to specific levels of performance or balanced among the key areas of cost, schedule, and timeliness.
- The BSMO has reduced the use of firm fixed-price task orders, the type most recommended for performance-based contracting.
- Improvements are needed in the quality of draft documents provided by the PRIME contractor to the BSMO for review.

We believe that improvements in these areas should be emphasized as a key segment of the BSMO's effort to enhance the level of contract management and to improve the PRIME contractor's performance. To address these areas, we recommended that BSMO management determine whether performance-based contracting techniques are appropriate for all the BSMO task orders. Additionally, the BSMO should develop a "lessons learned" document from the task orders and monitoring plans issued thus far and provide additional guidance and examples on developing measurable performance standards, performance incentives, and monitoring plans. This guidance should require that monitoring results are documented and PRIME contractor performance data are compiled for each task order. As part of this process, the BSMO should analyze the time required to develop and negotiate strong performance-based contracting task orders and monitoring plans and build that time into the project schedules and processes.

To ensure good performance is rewarded and poor performance is improved, the BSMO should require the development of balanced quality, schedule, and cost incentives for performance-based task orders and use firm fixed-price task orders³ whenever possible and appropriate. In addition, the BSMO should ensure that the PRIME contractor conducts a thorough review of draft products with IRS project personnel prior to their delivery and ensure that the PRIME contractor quality review signoff occurs prior to the final delivery of work products.

Management's Response: The Acting Deputy Commissioner for Modernization & Chief Information Officer responded with general agreement to our observations and recommendations for improvement. A Contracting Executive Council has been established to lead the effort in making improvements to contract management of the

³ A firm fixed-price task order sets a price that is not subject to any adjustment because of cost overruns incurred by the contractor.

Business Systems Modernization program. Management's complete response to the report is included as Appendix V.

Copies of this report are also being sent to IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions or Scott E. Wilson, Assistant Inspector General for Audit (Information Systems Programs), at (202) 622-8510.

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Additional Improvements Are Needed in the Application of Performance-Based Contracting to Business Systems Modernization Projects

Background

The Internal Revenue Service (IRS) is currently in the midst of a multi-billion dollar, multi-year business systems modernization effort. The IRS selected Computer Sciences Corporation to be the PRIME contractor and created the Business Systems Modernization Office (BSMO) to manage this effort. The BSMO has recognized the need to improve management of task orders¹ under the PRIME contract² and has been emphasizing the increased use of performance-based contracting (PBC) as one road towards this improvement. Use of PBC means structuring all aspects of an acquisition around the purpose of the work to be performed, with the contract requirements set forth in clear, specific, and objective terms with measurable outcomes.

To introduce basic PBC principles, the IRS hired Jefferson Solutions³ to train the BSMO and IRS contracting personnel. Jefferson Solutions summarized PBC procedures as:

- Work statements that define desired results.
- Requirements that reflect needs of all stakeholders.
- Performance standards that are meaningful, measurable, and fair.
- Practical quality assurance or monitoring plans.
- Evaluation factors and processes that emphasize performance.

¹ A task order is an order for services placed against an established contract.

² The PRIME contract is an Indefinite Delivery Indefinite Quantity contract that permits flexibility in both quantities and delivery scheduling. The contract was awarded to the Computer Sciences Corporation in December 1998 and could span 15 years at an estimated cost of \$5 billion.

³ Jefferson Solutions is a division of Jefferson Consulting Group, LLC, and has been designated by the Office of Federal Procurement Policy to provide training on PBC.

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Under the PRIME contract, various types of task orders may be issued. Standards for PBC recommend the use of firm fixed-price task orders⁴ whenever possible.

After a task order is issued and the work progresses, modifications to the task order may become necessary. Modifications to contracts and task orders may be made for various reasons: to definitize,⁵ to make administrative changes, or to adjust to changes in requirements, schedule, or funding. Contracts and task orders that contain ambiguous requirements may have numerous modifications to clarify the work to be conducted, which can cause projects to go over schedule and cost estimates.

We issued a report in September 2000,⁶ which showed that 25 of the 29 task orders reviewed, totaling \$62 million in obligations, had been issued undefinitized. Task orders had not been definitized because requirements were vague, incomplete, or constantly changing and the rates for consultants, sub-contractors, and profit percentages had not been agreed upon. BSMO management asserted that the practice of issuing undefinitized task orders would decrease as the contract progressed.

In June 2001, the BSMO Quality Assurance function reported similar deficiencies with the BSMO's acquisition and contract management activities. For instance, Quality Assurance reported that the BSMO was continuing to issue letter type (undefinitized) contracts/task orders and had experienced significant delays in completing requirements and final agreements on cost, schedule, and performance negotiations.

⁴ A firm fixed-price task order provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract.

⁵ "Definitized" means that all contract requirements have been defined and agreed upon.

⁶ *Administration of the PRIME Contract Can Be Improved* (Reference Number 2000-10-138, dated September 2000).

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In a May 2002 briefing, the BSMO reported that it had made various commitments to improve contract management activities in Fiscal Year (FY) 2002 but reported that these activities were still at a relatively early stage. Processes still needed to be developed to define the steps to be taken to address risks associated with contract management. Therefore, the BSMO categorized this area as “red” status, indicating that more than one current or future due date was late.

We conducted our audit from September 2001 through June 2002 at the BSMO facilities in New Carrollton, Maryland, and the IRS National Headquarters in Washington, D.C. The audit was conducted in accordance with *Government Auditing Standards*. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

Improvements Have Been Made in Managing Task Orders

The BSMO and the PRIME contractor have worked diligently to shorten the length of time it takes to determine the specific requirements and associated costs and to definitize them in the task orders for systems modernization projects. New requirements have been added to the Task Order Issuance Process to ensure a definitized task order is in place for the subsequent project milestone⁷ before a project team is allowed to exit the current milestone. These efforts have resulted in a significant improvement in the average length of time to definitize a task order and, thus, a reduction in the amount of time the PRIME contractor is being reimbursed for time spent working without having specific, defined requirements.

In addition, the number of modifications to the task orders has decreased. This is indicative of better requirements definition up-front and a better understanding by the parties involved of what the initial task order should accomplish. Although a large number of modifications is not always negative, a trend of decreasing numbers of modifications

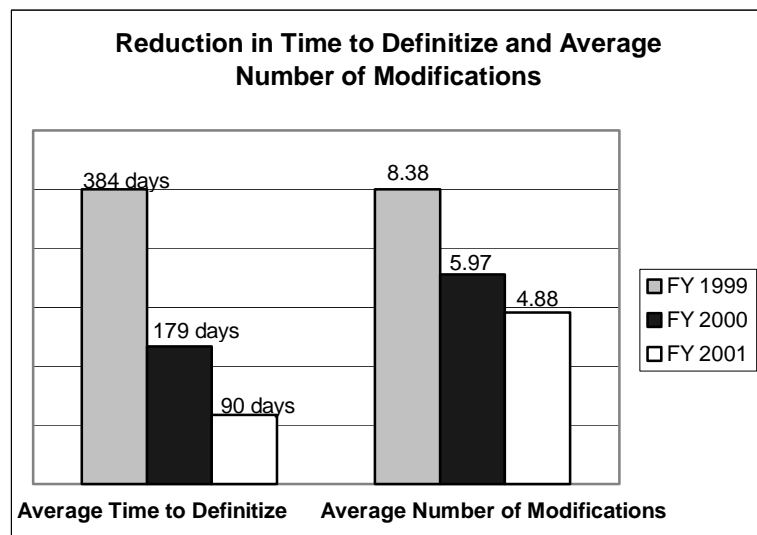
⁷ A milestone is a significant event in the project, usually the completion of a major work product or service.

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combined with improvements in the time required to definitize indicates that, as a whole, the BSMO and the PRIME contractor are more quickly coming to a clearer understanding of what is required to develop modernized business systems.

The following table shows the trends in time to definitize and the number of task order modifications:

Table 1: Improvements in Task Order Trends



Source: Task Order Report, updated June 7, 2002.

Additionally, in early 2001, we reported that the BSMO had made strides in developing and implementing a framework for monitoring the performance of the PRIME contractor, including the execution of performance-based task orders.⁸

In our current audit, we evaluated how well the BSMO was implementing PBC and selected six specific task orders, five of which were for projects in the development or deployment phase, to determine the consistency of application of PBC principles. The projects selected for evaluation were:

⁸ *The Business Systems Modernization Office Has Made Solid Progress and Can Take Additional Actions to Enhance the Chances of Long-Term Success* (Reference Number 2001-20-039, dated February 2001).

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- Customer Account Data Engine (CADE) — Builds a modernized database for managing customer information.
- e-Services — Creates an integrated, web-based replacement for existing third-party tools and data collection processes.
- Enterprise Systems Management (ESM) — Establishes an IRS-wide Help Desk and management system to improve responsiveness to business customers and replaces asset management functions.
- Internet Refund/Fact of Filing (IRFOF) — Provides taxpayers the ability to access refund and certain tax filing information via the Internet.
- Security and Technology Infrastructure Release (STIR) — Provides a customer-focused technical infrastructure for secure electronic interaction among employees, tax practitioners, and taxpayers.
- Systems Engineering (SE) Support — Provides a detailed Enterprise Architecture to define the IRS' future business objectives, processes, requirements, products, and services to be offered and the basic computer hardware and software that will be used to provide these services.

In general, the BSMO has made progress towards implementing PBC processes. All six task orders we evaluated had been written using PBC work statements, initial PBC guidance had been developed, and good applications of certain PBC principles had been made in some of the projects. For example, direct and concise performance standards were developed for the IRFOF task order, and a balanced schedule of fees targeting performance was developed for the CADE task order.

Work Statements and Monitoring Plans Did Not Consistently Implement Performance-Based Contracting Concepts

The work statements that were prepared to guide the PRIME contractor in performing the work were developed in accordance with the standard template used for the BSMO projects. However, beyond using the same template, the projects' work statements and the associated monitoring

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plans we evaluated did not consistently implement PBC concepts.

Project work statements did not consistently implement PBC concepts

We found great disparity in the number of performance standards included in the six task orders reviewed. The number of performance standards ranged from 14 in the IRFOF project task order to 101 in the portion of the STIR project task order that addressed infrastructure development. Although the number of performance standards can legitimately vary among task orders because of the different activities covered, we believe the projects we reviewed are similar enough that the variance in the number of measurable performance standards would not be significant. In addition, the number of standards must be low enough to allow for reasonable monitoring. We believe that attempting to monitor 101 performance standards is not an effective or efficient use of the BSMO's limited resources.

Another inconsistency we observed was that performance standards for certain task orders were focused primarily on how project documentation should be produced rather than the actual delivery of systems or implementation of infrastructure. This focus on production of documentation was present even though all but one of the projects we reviewed were in the process of developing systems or delivering infrastructure to support business systems. We believe the performance standards should have been focused primarily on this development and delivery and secondarily on the documentation to support this work.

Lastly, but probably most critically, the performance standards and acceptable quality levels documented in the work statements were not consistently measurable. Specifically, we found that the performance standards in the business project task orders (IRFOF, e-Services, and CADE) tended to be more measurable than those in the infrastructure projects (STIR and ESM) and SE Support task orders.

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Guidance from the Office of Management and Budget (OMB) on implementing PBC indicates that a measurable performance standard and an acceptable quality level⁹ are needed for each output in the Performance Work Statement. Guidance from Jefferson Solutions gives examples of PBC standards as quality, timeliness, accuracy, completeness, reliability, and cost. Using PBC should result in a focus on results, which should enable prioritization of work.

When we discussed the measurability of the performance standards with the project personnel, they indicated that it was more difficult to develop meaningful performance standards for infrastructure projects and system engineering task orders than the business projects because of the nature of the development work. Consequently, they have focused more on the documentation in those areas. In addition, the project personnel indicated that they have struggled to develop measurable performance standards in certain areas, and that coming up with these standards is a time-consuming process. Another observation they made was that developing these standards was even more difficult in the earlier stages of a project than it was in the stages that we reviewed.

We understand that developing measurable performance standards for projects is more difficult in the SE Support and infrastructure areas and in the early stages of project design. However, focusing on measurable performance in specific key areas of project delivery, such as business functionality, documentation, security and privacy, and project management should result in clearer, more concise task orders that would be more easily monitored and measured.

Monitoring plans, when used, did not effectively implement PBC principles

The IRS' contracting guidance requires that, for all acquisitions using the PBC process, the task order will identify the method that will be used to track and measure

⁹ Acceptable quality level is an allowable deviation from the Performance Standard.

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performance for each standard. A corresponding monitoring plan should be prepared concurrently with the task order. Our review of six task orders showed that four (e-Services, STIR, ESM, and SE Support) had a corresponding monitoring plan, although not all plans were developed concurrently with the task order. The two projects (IRFOF and CADE) that did not develop a monitoring plan used project management activities to monitor the PRIME contractor's performance but did not tie these activities to standards in the task order.

Although the four monitoring plans that we evaluated followed the required format, they did not consistently apply PBC methods to monitor the contractor's performance. For example, the plans did not consistently describe how the PRIME contractor's performance would be measured against the performance standard, and most of the monitoring methods consisted of reviews and meetings. Reviews and meetings are subjective monitoring methods because they rely heavily on the evaluator's impressions of performance quality. The following table identifies the disparity that we saw in evaluating the monitoring plans:

Table 2: Subjective vs. Measurable Monitoring Methods

Task Order (TO) Monitoring Plan	PERFORMANCE STANDARDS:			
	Total Number of Performance Standards in Monitoring Plan	Subjective Monitoring Method (Reviews, Meetings, or Other*)	Measurable Monitoring Method (Test Results, Reports, or Other*)	Measurable Percentage
e-Services TO 76	21	13	8	38%
STIR TO 61	21	20	1	4%
ESM TO 70	16	9	7	43%
SE Support TO 56	36	32	4	11%

Source: As indicated in table (denotes a very small percentage).*

We also found that results were not always adequately documented in the monitoring plans or elsewhere. For instance, one monitoring plan (e-Services) did not provide any monitoring results, and the other three plans (SE Support, STIR, and ESM) provided information on the

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monitoring activities performed and the results, but the documentation was not complete or dates of monitoring activities were not documented. Lack of documentation made it difficult to determine if monitoring plans were being followed on a continuous basis.

More significantly, monitoring results did not always address the PRIME contractor's achievement of or failure to meet performance standards. This information is not only crucial in holding the PRIME contractor accountable for meeting performance standards but also for providing the necessary support for the payment or nonpayment of types of incentive or award fees and for the annual evaluation of the PRIME contractor's performance.

PBC techniques provide that the monitoring plan describe how the PRIME contractor's performance will be measured against the performance standards. The plan also assists with the compiling of performance data used for establishing accountability for achievement of or failure to meet performance standards. Surveillance based on the plan should be comprehensive, systematic, and well documented.

Government policy¹⁰ requires agencies to develop quality assurance surveillance plans¹¹ that contain measurable inspection and acceptance criteria corresponding to the performance standards contained in the statement of work/performance work statements. Best practices provide that the quality assurance plan should be written concurrently with the task order performance standards, because it helps assure that the standard is measurable and that measurement is not unduly burdensome. The value of the information should be compared against the effort or cost to collect it.

¹⁰ Federal Acquisition Regulations (FAR), 48 C.F.R. § 37.602-2 (May 2001).

¹¹ The terms "surveillance plan or quality assurance surveillance plan" and "quality assurance plan" have the same meaning as the term "monitoring plan" used by the IRS.

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As indicated earlier in this report, we believe the lack of measurable performance standards in the task order makes it very difficult for the BSMO to develop an effective monitoring plan. In addition, the contracting guidance on monitoring and documenting the PRIME contractor's performance lacks the necessary clarity and detail needed by the project to develop effective monitoring plans. Also, the guidance had not been adequately communicated to all the BSMO and IRS acquisition personnel.

We also believe that monitoring performed for contract compliance was not always documented effectively because the project teams were conducting numerous project management activities that they viewed to be monitoring activities. The project team members stated that these activities were being documented as part of their project management processes. Although these management activities were important for other purposes, they were not tied to contract performance standards and, thus, were not effective contract monitoring tools. Without sufficient methods to monitor actual PRIME contractor performance against a standard, monitoring efforts may not result in improvements in cost-effectiveness and quality of performance.

Management Actions: BSMO management has established an Acquisition Streamlining Task Force to identify ways to improve the acquisition process. In addition, Program Office Directives for the various processes for issuance and status reporting of task orders have been published. In FY 2002, the BSMO has committed to identify key improvements to the PBC process. However, because of other priorities and budget constraints, plans for improvement in contract management are still being developed.

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Recommendations

To improve management of contractor performance, the BSMO should:

1. Determine whether PBC is appropriate for all the BSMO task orders.
2. Provide additional guidance and useful examples to procurement and project personnel on developing measurable performance standards, performance incentives, and monitoring plans. This guidance should include lessons learned from the task orders and monitoring plans issued thus far.
3. Analyze the time required to develop and negotiate strong PBC task orders and monitoring plans, and build that time into the project schedules and processes.
4. Ensure that monitoring results are documented and PRIME contractor performance data are compiled for each task order.

Management's Response: The BSMO Contracting Executive Council (CEC) and the Contract Process Action Team (CPAT) will review this area. The CPAT will use PBC lessons learned and best practices to refine the PBC matrices and Performance-Based Work Statements for milestone and non-milestone task orders. After the CEC approves the CPAT recommendations for PBC refinement, the BSMO will provide guidance to IRS Procurement and project personnel. As part of the PBC improvement effort, the CPAT will use lessons learned to determine the approximate time required to develop and negotiate various PBC task orders. Affected processes and procedures will be revised accordingly. As part of the PBC improvement effort, the BSMO will revise the monitoring guidance to ensure that staff document results and compile contractor performance data for each PRIME contractor task order.

**Incentives Were Not Consistently
Tied to Performance Standards**

The six task orders we reviewed each included some sort of fee associated with the completion of the task order (see table in Appendix IV). However, these fees were not consistently tied to measurable performance standards. In

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only one case, the CADE project, did we identify significant fees specifically associated with meeting performance standards in the schedule and quality components of the task order. On the STIR project, a small fee was associated with successful completion of testing, but the fee was much smaller than the overall target fee for completion of the task order work. On other task orders, fees were associated with the general completion of the task order work statement, or cost management, but not for exceeding identified performance standards.

In earlier reviews, we identified concerns with the lack of strong incentives tied to performance.¹² Guidance from the OMB indicates that incentives should be used when they will encourage higher quality performance and may be either positive, negative, or a combination of both. They should be applied selectively to motivate contractor efforts that might not otherwise be emphasized and to discourage inefficiency. Incentives should be applied to the most critical aspects of the work, rather than every individual task. Additionally, incentives are especially useful in efforts such as Business Systems Modernization that are complex, have a high-dollar value, or have a history of performance or cost overrun problems.

Agencies should avoid rewarding contractors for simply meeting minimum standards of contract performance and should create a proper balance among cost, performance, and schedule incentives. The incentive amount should correspond to the difficulty of the task required but should not exceed the value of the benefits the government receives.

When we discussed performance incentives with project contracting personnel, they indicated one reason that the incentives are not more directly tied to performance is

¹² *The Business Systems Modernization Office Has Made Solid Progress and Can Take Additional Actions to Enhance the Chances of Long-Term Success* (Reference Number 2001-20-039, dated February 2001) and *The Business Systems Modernization Office Needs to Strengthen Its Processes for Overseeing the Work of the PRIME Contractor* (Reference Number 2002-20-059, dated March 2002).

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because these types of balanced incentives are difficult to negotiate with the PRIME contractor. In addition, when we discussed the possible use of disincentives when performance was below acceptable quality levels, the BSMO personnel indicated that PRIME contracting staff consider achieving less than 80 percent of their negotiated award or fee a disincentive in their company. The BSMO personnel also indicated that they believe use of incentives would promote an adversarial relationship with the PRIME contractor, which they wish to avoid. Lastly, they indicated that prior BSMO executives had made a conscious decision not to apply incentives to specific performance standards in the task order but to apply them more broadly across the program. However, we have not seen indications of the use of these types of broader incentives.

We believe that consistently tying incentives to specific areas of performance (balancing cost, schedule, and performance) should increase the level of performance achieved and would enable the BSMO to emphasize the criticality of quality performance. Clear performance standards and strong award clauses on the CADE project have helped the BSMO avoid payment of increased costs to the PRIME contractor due to performance issues on that project.

Recommendation

To improve management of contractor performance, the BSMO should:

5. Require the development of balanced quality, schedule, and cost incentives for performance-based task orders.

Management's Response: As part of the PBC improvement effort, the IRS will revise task order development guidance, such as the PBC matrices and monitoring plans, to address the development of balanced quality, schedule, and cost incentives as appropriate for performance-based task orders.

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**Use of Firm Fixed-Price Task
Orders Has Decreased**

We evaluated the BSMO's use of firm fixed-price task orders¹³ and found that although there was an increased use of this contract type from FY 1999 to FY 2000, the use decreased between FY 2000 and FY 2001 from nearly 57 percent of task orders issued to less than 21 percent. None of the six task orders we reviewed were firm fixed-price task orders. All were cost-reimbursable¹⁴ task orders with some type of additional fee or incentive associated.

The Federal Acquisition Regulations section on service contracting¹⁵ indicates that a firm fixed-price performance-based contract is the preferred contract type. The guidance Jefferson Solutions provided to the BSMO also suggests that firm fixed-price task orders should be used whenever possible to motivate contractors to perform at the highest level. OMB guidance also indicates that PBC encourages and enables an increased use of firm fixed-price contracts and incentives to encourage optimal performance. Additionally, the IRS Deputy Commissioner for Modernization & Chief Information Officer recently indicated that one way the BSMO is attempting to control costs is to use firm fixed-price task orders more frequently.

The IRS contracting and BSMO executives indicated that they were instructing their personnel to use firm fixed-price task orders when appropriate. However, due to risks associated with formalizing requirements in this large-scale modernization effort, they indicated it was not always appropriate to use this type of task order. Personnel from one of the Business Systems Modernization project teams indicated that they believed the PRIME contractor would

¹³ A firm fixed-price task order is applicable when the government has been able to clearly define its requirements and has a fair idea of what the pricing should be. The contractor is not required to provide cost and pricing data in a firm fixed-price contract/task order.

¹⁴ Cost-reimbursable types of contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract.

¹⁵ Federal Acquisition Regulations (FAR), 48 C.F.R. § 37.602-4 (May 2001).

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not usually agree to the use of these task orders or that it would take too long to negotiate their use. They stated that the PRIME contractor was somewhat averse to these types of task orders because in at least one instance, when a firm fixed-price task order was used in FY 2000, the contractor was left responsible for various costs because the project did not meet the delivery date.

Because cost-reimbursable rather than firm fixed-price task orders are used, IRS contracting and BSMO personnel must focus significant levels of effort tracking cost information. In addition, when a contract exceeds planned costs and delivery dates, the BSMO is typically responsible for paying these additional contractor costs. We believe, based on our review of PBC and general contracting principles, that the use of firm fixed-price task orders is more effective in shifting the risk of non-performance to the PRIME contractor. In addition, use of these types of task orders automatically builds in incentives for cost management. Use of firm fixed-price task orders does require more time and focus initially to ensure that task order requirements are identified and negotiated, but the benefits of reduced contract administration and reduced liability for contractor costs when time frames or cost projections are exceeded should offset the time spent in up-front planning. We also believe that the efforts the PRIME contractor is making to improve its cost and schedule estimation should make negotiations of firm fixed-price task orders more reasonable.

Recommendation

To better control contractor costs, the BSMO should:

6. Require the use of firm fixed-price task orders whenever possible and appropriate for projects in development and deployment and for any other task orders where requirements are clearly identified.

Management's Response: The CEC will assess various contracting strategies to ensure firm fixed-price contracts are used in accordance with this recommendation.

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**Improvements Are Needed in
the Quality of Draft Products
Provided for Review**

The PRIME contractor is responsible for providing a final and independent assessment of work products prior to delivery to the BSMO. This assessment is made to ensure that the products meet task order requirements.

In March 2001, the BSMO Quality Assurance function reported that the signature of the PRIME contractor's quality review personnel on products did not necessarily imply approval of the work products. To determine whether this issue still existed, we reviewed available final products from three projects to determine if they were in compliance with the task order requirements. We found that 18 of the 21 products reviewed were in compliance with the task order requirements. The issues with the remaining three products did not significantly affect their usability, or the BSMO personnel indicated that they had agreed to accept the products as delivered, knowing that all information was not included.

While most of the final delivered products met quality requirements, we found that draft products provided to the BSMO for review did not consistently meet quality standards. As a result, these products frequently had to be returned to the PRIME contractor for rework to address non-compliance with original requirements.

For example, we reviewed comments made by reviewers of 5 ESM project draft products and found that 30 percent of the comments related to issues with the products not meeting requirements. On the e-Services project, the Project Director initially rejected the draft Project Management Plan because it lacked specific details required to show how the PRIME contractor would successfully manage the project. Also, it did not include the required Quality Management Plan, Training Plan, or Risk Management Plan. In another case, quality issues with the transition strategy portion of the Enterprise Architecture caused the BSMO to question whether it should release this portion for review by key stakeholders.

We believe one reason these quality problems existed was that the PRIME contractor did not always complete the deliverable review process prior to the delivery of draft

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products to the BSMO. We found that the PRIME contractor's signoff indicating completion of its review often occurs after delivery of the products to the BSMO. The PRIME contractor's document delivery process that describes the activities involved in the quality review process does not clearly identify the sequence of quality processes or what level of quality review is required prior to delivery of draft products to the BSMO for its review.

When the PRIME contractor's quality review process is finalized after the BSMO review and acceptance of products, the benefits this process could provide are minimized. Additional time and expense can occur to address quality problems that should have been identified and addressed prior to initial document delivery. In addition, in some cases significant additional costs could accrue to the BSMO to address quality problems identified during this process even after the product has been accepted by the BSMO. For example, STIR project personnel indicated that they have questioned costs in one instance in which the PRIME contractor requested payment for changes made based on its quality review after the BSMO had approved the product.

Management Actions: The BSMO plans to conduct reviews of the PRIME contractor's quality review process as a follow-up to its March 2001 review. In addition, a review of the Documentation Review and Delivery process is currently underway. This review will determine if the PRIME contractor and the BSMO are following a documented process and will also focus on the document acceptance and rejection process.

Recommendations

In order to improve the quality of draft products, the BSMO should:

7. Require the PRIME contractor to conduct a review of draft work products with the IRS to ensure the products meet task order requirements prior to their delivery to the BSMO.

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8. Ensure the final PRIME contractor quality review signoff occurs prior to the final delivery of contractor products.

Management's Response: No additional corrective action is necessary because Business Systems Modernization management believes that to mandate a review of all draft work products may add cost without substantive value in some, if not all, cases. Nevertheless, the BSMO believes it can work more closely with the PRIME contractor on some draft work products, whether by co-developing them or by using informal reviews to ensure eventual acceptance of task order deliverables.

In addition, a corrective action to a separate report includes revised requirements regarding PRIME contractor review before IRS acceptance of final deliverables. Included in that action is a provision that the Milestone Exit Review will provide a comprehensive checklist of products the PRIME contractor will review and sign.

Office of Audit Comment: We agree that if management works more closely with the PRIME contractor on draft work products and takes the detailed actions to improve the Milestone Exit Review Process, they will have addressed the substance of the issues reported in this section.

Additional Improvements Are Needed in the Application of Performance-Based Contracting to Business Systems Modernization Projects

Appendix I

Detailed Objective, Scope, and Methodology

The overall objective of this review was to determine whether the Business Systems Modernization Office (BSMO) is properly using performance-based contracting (PBC) techniques to manage task orders¹ under the PRIME contract² and to ensure contract terms and requirements are being met.

To complete our work on this review, we conducted the following tests:

- A. Determined whether the BSMO properly used PBC techniques to prepare task orders for the following Fiscal Year 2002 release projects:
- Customer Account Data Engine — Builds a modernized database for managing customer information.
 - e-Services — Creates an integrated, web-based replacement for existing third-party tools and data collection processes.
 - Enterprise Systems Management — Establishes an IRS-wide Help Desk and management system to improve responsiveness to business customers and replaces asset management functions.
 - Internet Refund/Fact of Filing — Provides taxpayers the ability to access refund and certain tax filing information via the Internet.
 - Security and Technology Infrastructure Release — Provides a customer-focused technical infrastructure for secure electronic interaction among employees, tax practitioners, and taxpayers.
 - Systems Engineering Support — Provides a detailed Enterprise Architecture to define the IRS' future business objectives, processes, requirements, products, and services to be offered and the basic computer hardware and software that will be used to provide these services.

¹ A task order is an order for services placed against an established contract.

² The Computer Sciences Corporation was selected as the PRIME contractor to help with the integration and management of Internal Revenue Service's (IRS) modernization efforts.

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- B. Determined how the BSMO was using PBC techniques for the Fiscal Year 2002 project releases to monitor task orders and ensure contract terms and requirements are being met.

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Appendix II

Major Contributors to This Report

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Appendix III

Report Distribution List

Commissioner N:C
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Associate Commissioner, Business Systems Modernization M:B
Deputy Associate Commissioner, Program Management M:B:PM
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 Associate Commissioner, Business Systems Modernization M:B

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Appendix IV

Summary of Fees for Task Orders Reviewed¹

Project / Task Order (TO)	Contract Amount	Fixed Fee	Performance Fee	Total Est. Contract Cost
CADE² TO 73	\$22,884,800	\$685,600	\$1,600,000 (Allocated as follows: \$784,000 for meeting schedule, \$648,000 for quality, and \$168,000 for managing costs)	\$25,170,400
e-Services TO 76	\$30,491,816		\$2,581,346 (Allocated solely for managing costs and TO completion)	\$33,073,162
ESM³ TO 70	\$5,441,185	\$421,200		\$5,862,385
IRFOF⁴ TO 79	\$7,004,555		\$594,360 (Allocated solely for managing costs and TO completion)	\$7,598,915
STIR⁵ TO 61	\$22,962,958	\$704,247	\$1,446,820 (Allocated as follows: \$1,246,820 for managing costs and TO completion, and \$200,000 for successful completion of testing)	\$25,114,025
Systems Engineering Support TO 56	\$15,799,678	\$1,311,198		\$17,110,876

¹ These data were current as of the end of our audit fieldwork. However, the task orders referenced were still open and all costs and fees listed in this table were subject to modification.

² Customer Account Data Engine.

³ Enterprise Systems Management.

⁴ Internet Refund/Fact of Filing.

⁵ Security and Technology Infrastructure Release.

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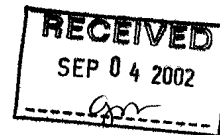
Appendix V

Management's Response to the Draft Report



DEPUTY COMMISSIONER

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
WASHINGTON, D.C. 20224



August 27, 2002

MEMORANDUM FOR PAMELA J. GARDINER
DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM: *John C. Reutter*
Acting for Deputy Commissioner for Modernization &
Chief Information Officer

SUBJECT: Draft Report – Additional Improvements Are Needed in the
Application of Performance-Based Contracting to Business
Systems Modernization Projects (Audit # 200120045)

The Business Systems Modernization (BSM) program brings together best practices and expertise in business solutions from the IRS, the business community, and the technology sector to develop tax administration systems that fulfill the IRS mission and serve taxpayer needs and expectations. One of those best practices is developing a partnership with our contractor to identify innovative and effective systems solutions that will fundamentally transform the way the IRS delivers services and manages information. The IRS and leading technology and management companies comprise the BSM public/private partnership. The program has already implemented four new systems/solutions that give taxpayers secure, easy, and more convenient access to information and more efficient service, and IRS employees better tools to do their jobs.

Last year, we improved the efficiency and effectiveness of our systems for responding to taxpayer calls through our Customer Communications 2001 (CC01) project. Revenue agents are using new software (the Customer Relationship Management Exam project) that quickly and accurately calculates the tax computation in very complex tax return cases. This year, we continue to deliver the critical infrastructure for modernized systems and improved service to taxpayers, such as:

- An Internet service, the Internet Refund/Fact of Filing (IR/FoF) project, that allows taxpayers to check on the status of their refunds
- The first release of the common integrated technical infrastructure, the Security and Technology Infrastructure Release (STIR) project, to support and enable the secure delivery of modernized business systems
- A modernized individual taxpayer database

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- We have also made critical progress on the Customer Account Data Engine (CADE) project by piloting a selected set of taxpayer returns. This process allows us to begin the replacement of our old returns processing system and database of taxpayer records

This unique partnership requires us to use a variety of contracting tools to successfully deliver the benefits of the BSM program. We appreciate your discussion of the improvements we have made in this area. We also agree, in general, with your observations and recommendations for improvement. Moreover, we appreciate the professional dealings we have had with your staff during the audit process, particularly with Tammy Whitcomb and Esther Wilson.

As noted in your report, we made progress reducing the time to negotiate contracts and the number of subsequent modifications to these contracts. I agree that we must improve our contracting management of the program. To lead this effort, we established a Contracting Executive Council (CEC) to address necessary improvements. The Council is led by two Deputy Associate Commissioners from BSMO and the PRIME program executive, and includes members from IRS Procurement, MITRE, and the PRIME Contracts Office. The Council's primary goals are to:

- Develop a business environment of trust based on mutual recognition and respect of various aspects of program and contractual risks
- Promote the most effective contractual strategies and approaches in support of IRS modernization, including the appropriate use of performance-based contracting
- Ensure effective communication on processes and procedures for acquisition and performance management
- Establish an environment of continual process improvement of PRIME acquisition and performance management

In addition, a contract process action team supports the CEC in resolving PRIME contract management issues by assessing root causes and recommending corrective actions. The initial agenda items for this group include:

- Establishing a strategy to prevent undefinitized contract actions
- Identifying and implementing key improvements to the performance-based contracting (PBC) process for BSM projects
- Implementing a consistent set of acquisition processes, procedures, and directives throughout the BSM program incorporating the recognized standards of the Software Engineering Institute's Software Acquisition - Capability Maturity Model (SA-CMM)

We are committed to using the most appropriate contract type, and have applied many of the elements of PBC to our contracts. Although we learned that not every project is

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well suited for PBC techniques, some of these techniques provide a framework and discipline to oversee contract performance. We plan to refine our processes, procedures, and guidelines for those task orders that lend themselves to PBC. Likewise, we make the best use of fixed price contracts and incentives when we clearly define the services and products. We have based many of our BSM projects on new ways of doing business in which business requirements evolve over time and are not necessarily best suited for these contracting tools. However, the CEC will review strategies for the appropriate application of firm fixed-price contracts to BSM projects.

Again, we generally agree with your observations and are working diligently to make improvements. Our response to your individual recommendations is in the attachment. If you have any questions, please contact me at (202) 622-6800, or Fred Forman, Associate Commissioner for Business Systems Modernization, at (202) 622-3378.

Attachment

Additional Improvements Are Needed in the Application of Performance-Based Contracting to Business Systems Modernization Projects

I. Work Statements and Monitoring Plans Did Not Consistently Implement Performance-Based Contracting Concepts

Recommendation No. 1: To improve management of contractor performance, the BSMO should determine whether PBC is appropriate for all the BSMO task orders.

Corrective Action No. 1: The BSM Contracting Executive Council (CEC) and the Contract Process Action Team (CPAT) will review this area and consider issuing more specific guidance for the use of performance-based contracting (PBC) with various task orders.

Implementation Date: Proposed: October 1, 2003

Responsible Official: James A. Williams
Deputy Associate Commissioner for
Program Management

Recommendation No. 2: To improve management of contractor performance, the BSMO should provide additional guidance and useful examples to procurement and project personnel on developing measurable performance standards, performance incentives, and monitoring plans. This guidance should include lessons learned from the task orders and monitoring plans issued thus far.

Corrective Action No. 2: In May 2002, the CEC chartered its working group, the CPAT, to retool/improve the PBC process. We initiated this effort to facilitate effective requirements documentation, including clearly stated outcomes, required services, performance standards, acceptable quality levels, and to monitor methodologies, incentives, and disincentives. The CPAT will use PBC lessons learned and PBC best practices to refine the PBC matrices and Performance Based Work Statements (PBWS) for milestone and non-milestone task orders. After CEC approves the CPAT recommendations for PBC refinement, BSM will provide guidance to IRS Procurement and project personnel.

Implementation Date: Proposed: October 1, 2003

Responsible Official: James A. Williams
Deputy Associate Commissioner for
Program Management

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Attachment

**Draft Audit Report – Additional Improvements are Needed in the Application of
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(Audit # 200120045)**

Recommendation No. 3: To improve management of contractor performance, the BSMO should analyze the time required to develop and negotiate strong PBC task orders and monitoring plans, and build that time into the project schedules and processes.

Corrective Action No. 3: As part of the PBC improvement effort addressed in Corrective Action No. 2, the CPAT will use lessons learned to determine the approximate time required to develop and negotiate various PBC task orders. We will revise affected BSM processes and procedures (e.g., the acquisition project planning process) accordingly.

Implementation Date: Proposed: October 1, 2003

Responsible Official: James A. Williams
Deputy Associate Commissioner for
Program Management

Recommendation No. 4: To improve management of contractor performance, the BSMO should ensure that monitoring results are documented and PRIME contractor performance data are compiled for each task order.

Corrective Action 4: As part of the PBC improvement effort addressed in Corrective Action 2, we will revise the monitoring guidance to ensure that BSM staff document results and compile contractor performance data for each PRIME task order.

Implementation: Proposed: October 1, 2003

Responsible Official: James A Williams
Deputy Associate Commissioner for
Program Management

II. Incentives Were Not Consistently Tied to Performance Standards

Recommendation No. 5: To improve management of contractor performance, the BSMO should require the development of balanced quality, schedule, and cost incentives for performance-based task orders.

Corrective Action No. 5: As part of the PBC improvement effort addressed in Corrective Action No. 2, the IRS will revise task order development guidance, such as the PBC matrices and monitoring plans, to address the development of balanced quality, schedule, and cost incentives as appropriate for performance-based task orders.

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Attachment

**Draft Audit Report – Additional Improvements are Needed in the Application of
Performance-Based Contracting to Business Systems Modernization Projects
(Audit # 200120045)**

Implementation: Proposed: October 1, 2003

Responsible Official: James A. Williams
Deputy Associate Commissioner for
Program Management

III. Use of Firm Fixed-Price Task Orders Has Decreased

Recommendation No. 6: To better control contractor costs, the BSMO should require the use of firm fixed-price task orders whenever possible and appropriate for projects in development and deployment, and for any other task orders where requirements are clearly identified.

Corrective Action No. 6: The CEC will assess various contracting strategies to ensure we use firm, fixed-price contracts in accordance with this recommendation.

Implementation: Proposed: October 1, 2003

Responsible Official: James A. Williams
Deputy Associate Commissioner for
Program Management

IV. Improvements Are Needed in the Quality of Draft Products Provided for Review

Recommendation No. 7: In order to improve the quality of draft products, the BSMO should require the PRIME contractor to conduct a review of draft work products with the IRS to ensure the products meet task order requirements prior to their delivery to the BSMO.

Corrective Action No. 7: No corrective action is necessary because the IRS does not accept or reject draft work products from our PRIME contractor. Nevertheless, as part of our partnership approach in the modernization effort, the IRS and PRIME play key roles in developing solutions. The strategy of receiving draft work products facilitates the communication of IRS requirements up front and through the entire process. We believe we can work closer on some draft work products, whether by co-developing them in an Integrated Product Team (IPT) environment or by using informal reviews with the IRS to better ensure eventual acceptance of task order deliverables. To mandate a review of all draft work products may add cost without substantive value in some if not most cases.

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Attachment

**Draft Audit Report – Additional Improvements are Needed in the Application of
Performance-Based Contracting to Business Systems Modernization Projects
(Audit # 200120045)**

Recommendation No. 8: In order to improve the quality of draft products, the BSMO should ensure the final PRIME contractor quality review signoff occurs prior to the final delivery of contractor products.

Corrective Action No. 8: No additional corrective action is necessary. A corrective action currently exists in the Treasury Corrective Action Database for Audit Report Number 2001-20-39. Corrective Action 4-1-1, Revising the Milestone Exit Review (MER) Process, includes revised requirements regarding PRIME review before IRS acceptance of final deliverables.

We are modifying the MER process/procedure to reflect the following changes:

- The documents reflect IRS stakeholder review and the Program Director Offices (PDOs) and their GTMs have the authority and accountability for the approval of all project deliverables and work products
- The MER documents provide definition and guidance for all milestone reviews to ensure consistency across all projects
- A documented process will ensure project integration across all projects, identifying dependencies, critical paths, risks, and issues that impact more than one project, and ensuring that current (legacy) systems are considered throughout the process.
- The MER will provide a comprehensive checklist of products the PRIME contractor will review and sign, including the PRIME quality organization and the IRS operational area that is the authorized reviewer of the specific product as well as the PRIME.